The Impact of Perceived Listening Behavior in Voice-to-Voice Service Encounters

Ko de Ruyter
Martin G. M. Wetzels
University of Maastricht, The Netherlands

Call centers have become an important customer access channel as well as an important source of customer-related information. This boundary-spanning unit has finally enabled companies to take marketing's commonplace wisdom of listening to the customer literally. As a result, there has been an increase in voice-to-voice service encounters and in these encounters listening as an essential skill. In this article, three dimensions of listening behavior are discerned: attentiveness, perceptiveness, and responsiveness. Results of an empirical study reveal that attentiveness is a direct driver of encounter satisfaction, whereas perceptiveness is primarily related to trust. Furthermore, the responsiveness dimension is related positively to both satisfaction and trust. In addition, we find a significant association between satisfaction and trust, and, finally, both a satisfactory evaluation of the voice-to-voice encounter and the build up of trust have a significant impact on the customer's intention to contact the call center again in the future.

As a result of technological advances in information and communication technology, mass customization and individual responsiveness are fundamentally changing the nature of marketing services and products. A recent editorial note in the *International Journal of Service Industry Management* (Vol. 10, Issue 1, 1999) states that the long-proclaimed interactive marketing paradigm has suddenly become a reality. An increasing number of firms have installed call centers as a communications platform to integrate services and sales functions in dealing with large numbers of customers via remote, real-time contact (Anton 1996; Dawson 1998). By fostering a relationship-oriented focus, these organizational units, which have as their primary task the processing in- and outbound communications with customers and prospects, are rapidly becoming a key source of customer-specific knowledge. Furthermore, it has been argued that call centers are an important source of competitive advantage (Dobbins 1996). Although listening to the voice of the customer has since long been advocated in marketing theory and practice, the wide-scale implementation of call centers has only recently enabled companies to take this commonplace wisdom literally (Molloy 1996). Although listening to the customer has been classified as a major cause of marketing effectiveness, it has also been identified as an "underresearched" behavioral phenomenon in the marketing literature (Ramsey and Sohi 1997). Despite a few notable exceptions, little is known about the impact of listening behavior on buyer-seller relations. Because the notion of interactivity is rapidly widening both in terms of scope and scale and the degree of voice-to-voice service encounters is incrementally increasing, it seems relevant to gain a more in-depth understanding of the listening behavior of call center agents and its impact on customer-firm relationships. The purpose of this article is to introduce and discuss the concept of listening behavior in voice-to-voice service encounters and to test several theoretical propositions with regards to firm-customer relationships empirically. It is structured as follows. First, we will focus on listening behavior and a number of relational exchange con-

structs. Second, we will report on the results of a study that has examined empirically a framework in which dimensions of listening behavior and its relational consequences were modeled. In conclusion, we will address the theoretical as well as the managerial implications of our findings.

CONCEPTUALIZING PERCEIVED LISTENING BEHAVIOR

Listening as perceived by customers has been defined as "a set of interrelated activities, including apparent attentiveness, non-verbal behavior, verbal behavior, perceived attitudes, memory and behavioral responses" (Lewis and Reinsch 1988, p. 18). This and other definitions point to the fact that listening is a complex, affective, and cognitive behavioral activity consisting of a number of distinct behavioral manifestations. Although it has been pointed out that listening should be conceptualized as a holistic, higher order construct (Ramsey and Sohi 1997), Mead (1986) states that "it is desirable to disentangle the various factors that contribute to a construct" (p. 512). Anderson and Martin (1995), in their study of group communication and listening behavior, identified three components of listening behavior: (a) attentiveness, (b) perceptiveness, and (c) responsiveness. Other authors (e.g., Frank and Brownell 1989; Ramsey and Sohi 1997; Trenholm 1995) have identified similar facets of listening. We will briefly discuss these three listening components from a service encounter perspective in a call center setting.

First, attentiveness reflects the extent to which customers receive verbal and nonverbal cues from call center agents during the telephone service interaction. Verbal cues consist of language stimuli, enabling listeners to give consideration, frequently by using affirmative words such as "yes" and "go on" (Pearson and Nelson 1997). Nonverbal cues reflect the occurrence of what has been called "paralanguage," which includes vocal qualities (i.e., voice characteristics like pitch, rate, and volume), vocalizations (i.e., sounds conveying meaning such as groans and moans), and voice segregates (i.e., pauses and fillers such as "um" and "ah"). Paralanguage is particularly important because it is frequently associated with a speaker's physical personality and gender characteristics, emotional state, and even credibility and sincerity. For instance, it has been demonstrated that a relatively high occurrence of voice segregates has an effect on credibility levels on the part of the listener (Frank and Brownell 1989). In general, verbal cues carry a large part of a message's cognitive content, whereas nonverbal cues reflect affective commitment and involvement. Barker and Gaut (1996), for instance, demonstrate that nonverbal vocal cues accounted for 38% of the communication of emotional content. Thus, it seems that active listening involves more than just words.

A second component of listening behavior forms perceptiveness. This mainly cognitive activity reflects the listener's attempt to understand the message by assigning meaning to the verbal and nonverbal messages that are transmitted by the speaker. During a voice-to-voice service encounter, a customer can perceive whether a call center agent is actively attempting to understand the message that is conveyed. By means of training and (computer) scripts and heuristics, call center agents can retrieve information from knowledge schemes and in this way facilitate interpretation of the message sent. In addition, a number of signals may be used to convey understanding of the message. For instance, asking for more details and rephrasing the message to check for the right interpretation are some of the ways that convey perceptiveness (Abrams and Hibbison 1986; Brody 1994; Pearson and Nelson 1997; Ramsey and Sohi 1997).

A third component of listening behavior is responsiveness. This indicates the level of understanding or agreement between the call center agent and the customer. A call center agent's verbal and nonverbal feedback helps the customer to determine whether the message has been received, interpreted, and evaluated in the appropriate manner. Several types of behavioral manifestations have been identified in the literature. For instance, Abrams and Hibbison (1986) and Ramsey and Sohi (1997) argue that a response to a customer consists of answering at the appropriate times, offering elaborate and relevant information with the use of full sentences instead of just yes and no saying, as well as answering enthusiastically. In the next section, we turn to the consequences of these types of listening behavior.

CONSEQUENCES OF LISTENING BEHAVIOR: DEVELOPMENT OF HYPOTHESES

According to Frazier, Gill, and Kale (1989), behavior aimed at developing and maintaining a relational exchange process is directed at influencing the exchange partner's perception of one's ability and competencies. In the literature on relational exchange in an economic context, several beneficial outcome variables of buyer-seller interactions have been identified. Crosby, Evans, and Cowles (1990), for instance, argue that the relational outcomes of satisfaction and trust are essential building blocks for maintaining long-term relationships with a customer base. It is stated that a positive evaluative judgment on the part of the customer is primarily dependent on whether customers feel that they can rely on a service provider's integrity and that they have confidence in this reliance in anticipation of future interactions. Perceived trust is based on a level of past performance that has met or ex-

ceeded expectations. This is especially the case when the service is complex, the environment is dynamic, and the customer is relatively unsophisticated about the service (Crosby, Evans, and Cowles 1990).

Trust in a call center context can be defined as the confident belief on the part of the customer that the call center agent can be relied on to behave in a such a manner that the long-term interests of the customer will be served. Parallel to the conceptualization of trust in a sales context (Crosby, Evans, and Cowles 1990), a customer is likely to trust a call center agent if she or he is confident that the agent will not knowingly distort information or otherwise subvert the customer's interest. Satisfaction will be achieved when expectations are met or exceeded. Selnes (1998) argues that the communication process between customers and employees is vital to the formation of satisfaction because it can result in a mutually held view regarding expectations and performance. Morgan and Hunt (1994) empirically demonstrate that communication between customer and firm representatives may increase trust by resolving disputes and streamlining the satisfaction formation process by aligning perceptions and expectations. Therefore, it can be argued that communication is an essential antecedent of satisfaction and trust in buyer-seller relationships. Trust and satisfaction are based on the extent to which a call center agent does what is promised, gives a truthful answer, take the customer's call seriously, does this in a courteous and friendly manner, and so forth. With regard to the relationship between listening behavior and satisfaction, we postulate that the better a call center agent listens to a customer, the better she or he will be at resolving disputes, reducing uncertainty, and matching expectations and perceptions. Specifying the relationship between the individual dimensions of listening behavior and satisfaction and trust leads to the following set of hypotheses:

Hypothesis 1: There will be a positive relationship between attentiveness and satisfaction.

Hypothesis 2: There will be a positive relationship between perceptiveness and satisfaction.

Hypothesis 3: There will be a positive relationship between responsiveness and satisfaction.

Hypothesis 4: There will be a positive relationship between attentiveness and trust.

Hypothesis 5: There will be a positive relationship between perceptiveness and trust.

Hypothesis 6: There will be a positive relationship between responsiveness and trust.

Satisfaction has frequently been conceptualized as "an immediate response to consumption" (Oliver 1997, p. 188). Furthermore, it is commonly operationalized in service-encounter-specific terms. In contrast, trust is often viewed as a more long-term relationship characteristic, as becomes clear from the definition offered by Anderson and Weitz

(1989): "one party's belief that its needs will be fulfilled in the future by actions undertaken by the other party" (p. 312). Therefore, we anticipate that satisfaction is an antecedent to trust. This leads to the following hypothesis:

Hypothesis 7: There will be a positive relationship between satisfaction and trust.

In addition, we propose that both satisfaction and trust are indicative of a customer's intention to call again. If a customer has had a satisfactory service encounter, he or she is more likely to engage in future encounters. Research by Crosby, Evans, and Cowles (1990), who found that customer evaluative judgements significantly impact readiness of future interaction, confirms this contention. Furthermore, Morgan and Hunt (1994) demonstrate that in the case in which a buyer trusts a supplier, he or she will be more inclined to cooperate with this supplier. Therefore, we hypothesize that

Hypothesis 8: There will be a positive relationship between satisfaction and intention to call again.

Hypothesis 9: There will be a positive relationship between trust and intention to call again.

Figure 1 summarizes the aforementioned hypotheses in a conceptual model.

In the next section, we will discuss an empirical test of our conceptual model and its underlying hypotheses in the context of call center service interactions.

AN EMPIRICAL STUDY

Research Setting

To test these notions, our empirical study was conducted among call center employees of a provider of mobile telecommunication in the Netherlands. The call center provides customer service (such as number and account information and connect services) over the phone and sells mobile telephones and accessories by means of telesales. The company has three 250-seat call centers that handled 6.1 million calls in 1998.

Data Collection

Data were collected by means of a telephone survey. Customers who contacted the call center were called back for a telephone interview on the basis of a telephone script on the same day. Data collection by telephone was opted for as the amount of error due to the time difference between the actual contact and the administration of the questionnaire could be kept minimal. Furthermore, data collection by telephone was viewed as the most cost-efficient method as the call center had mobile and regular

FIGURE 1
Conceptual Framework
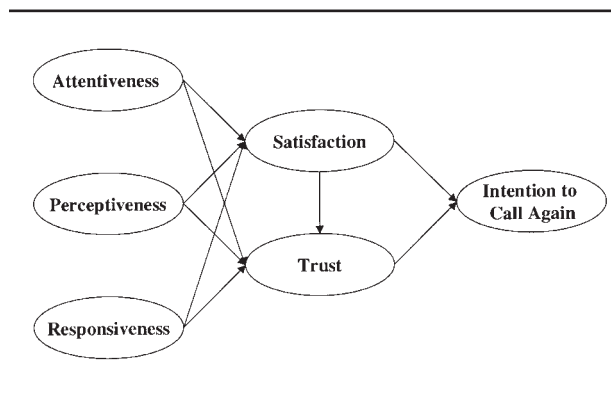
numbers readily available and call center agents could be scheduled to conduct the survey. Ten telephone surveys were administered to pretest the questionnaire. The object of this pretest was twofold: (a) to ensure that the agents responsible for data collection would collect the data in a similar and adequate manner and (b) to fine-tune the questionnaire. As we set out to test our conceptual model using structural equation modeling, we aimed for a sample size of at least 150 (Gerbing and Anderson 1988). Two hundred fifty customers were contacted and 150 questionnaires were collected, of which 3 could not be used due to mistakes in filling out the questionnaire, yielding an effective sample size of 147 or a response rate of 59%. Customers who were not willing to participate in the survey were asked to answer an abbreviated survey to obtain insight into nonresponse bias. No significant differences between respondents and nonrespondents regarding characteristics and attitudes were discovered.

Questionnaire Design

A questionnaire was designed containing constructs measured with multiple-item measures. Each of the items pertaining to the focal constructs as presented in our conceptual model (see Figure 1) was accompanied by a 5-point Likert-type scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). A number of items were reverse scored to detect response bias. Items for all constructs were developed specifically for this study on the basis of interviews with agents and customers. Attentiveness, perceptiveness, and responsiveness were based on measures developed by Ramsey and Sohi (1997). The measurement instrument for trust was based on the Dyadic Trust Scale of Larzelere and Huston (1980). Satisfaction was based on a satisfaction measure suggested by Lagace, Dahlstrom, and Gassenheimer (1991). Finally, call intention was measured by an instrument based on Crosby,

Evans, and Cowles (1990). A pretest with 29 customers led only to minor changes in the wording of two of the items. In Table 1, the measurement items that were used in our study are shown.

RESULTS

Construct Validation

Despite the relatively small sample size, we used confirmatory factor analysis for construct validation purposes (Bollen 1989; Gerbing and Anderson, 1988). Hulland, Chow, and Lam (1996) suggest a lower bound between 100 and 200 for sample size; the sample size (147) in our study is still within this boundary. However, we have to acknowledge that the relatively small sample can create problems using maximum likelihood (ML) estimation (cf. Bentler and Chou 1987), such as not capturing Type I errors (Hu and Bentler 1999).[1]

After an iterative process of inspecting t values, the patterns of the standardized residuals, and the modification indices, we obtained a good fit for the confirmatory model, whereby one item of the attentiveness listening dimension was dropped. Within-method convergent validity was assessed testing the significance and magnitude of the elements of the matrix Λ^x. We found that all items loaded higher than 0.48 on their respective constructs with a minimum t value of 5.41. Moreover, the reliability of the constructs in both models was evaluated using composite reliability and variance extracted measures. All constructs exhibited an adequate degree of reliability (> 0.6) in terms of composite reliability, as becomes clear from Table 1. Applying $\Delta\chi^2$ tests testing for unity between the constructs allowed us to assess discriminant validity. All tests were significant at $\alpha = .05$, thus indicating an adequate degree of discriminant validity.

Testing Substantive Hypotheses

On the basis of the construct validation reported above, summated scores of the constructs corrected for measurement error were used to address the hypotheses in the conceptual framework (Bagozzi and Heatherton 1994; Baumgartner and Homburg 1996). This approach is based on the work of Kenny (1979) and James, Mulaik, and Brett (1982) and has received ample support in empirical work in a large variety of academic disciplines (Netemeyer, Johnston, and Burton 1990; Osterhus 1997; Settoon, Bennett, and Liden 1996; Williams and Hazer 1986). Moreover, Netemeyer, Johnston, and Burton (1990) report that

---

1. We would like to thank one of the anonymous *JSR* reviewers for pointing this problem of the sample size limitation out to us.

TABLE 1
Results of Confirmatory Factor Analysis

Construct	Item	Reliability	Loading (Θ^X)	t Values
Attentiveness		0.63		
	1. The agent did not make an attentive impression.*		0.61	7.05
	2. The agent used short, affirmative words and sounds to indicate that (s)he was really listening to me.		0.70	8.03
Perceptiveness		0.62		
	1. The agent asked for more details and extra information during the conversation.		0.48	5.41
	2. The agent continually attempted to understand what I was saying.		0.53	6.04
	3. The agent paraphrased what had been said adequately.		0.60	6.80
Responsiveness		0.66		
	1. The agent offered relevant information to the questions I asked.		0.66	7.96
	2. The agent used full sentences in his/her answers instead of just saying yes or no.		0.61	7.23
	3. The agent did not recognize what information I needed.*		0.60	7.12
Trust		0.76		
	1. I believe that this company takes customer calls seriously.		0.57	6.93
	2. I feel that this company does not respond to customer problems with understanding.*		0.72	9.29
	3. This company is ready and willing to offer support to customers		0.69	8.83
	4. I can count on this company to be sincere.		0.69	8.82
Satisfaction		0.76		
	1. I am satisfied with the level of service the agent provided.		0.65	8.13
	2. I am satisfied with the way I was spoken to by the agent.		0.66	8.33
	3. I am satisfied with the information I got from the agent.		0.61	7.62
	4. The telephone call with this agent was a satisfying experience.		0.72	9.33
Call intention		0.61		
	1. I will very likely contact this company again.		0.49	5.45
	2. Next time I have any questions I will not hesitate to call again.		0.63	7.12
	3. I would not be willing to discuss problems I have with this company over the phone.*		0.64	7.28

* = negatively phrased item.

this approach basically yields the same results as a latent variable model with multiple indicators. In brief, this approach entails the summing of items that comprise a construct to form a single, aggregate scale for the whole construct, whereby the error variance is fixed at 1-reliability coefficient, and the path from the construct to the aggregate scale is fixed at the square root of the reliability (James, Mulaik, and Brett 1982; Kenny 1979; Loehlin 1987).

The reliability coefficients determined in the first stage of this approach were subsequently used to correct the constructs for measurement error. LISREL8 and PRELIS2 were used to the free elements in our conceptual framework using ML estimation (Jöreskog and Sörbom 1993). To test the hypotheses we formulated, we employed structural equation modeling using PRELIS and LISREL 8. We used LISREL to obtain ML estimates of the free parameters in our conceptual framework. Figure 2 displays the actual model structure corresponding to the hypotheses.

The χ^2 statistic is indicating a good fit between the theoretical model and the data, $\chi^2(5) = 12.18$, $p = .032$. Other indices are also indicative of a good fit: goodness of fit index (GFI) = 0.97; adjusted goodness of fit index (AGFI) = 0.89; Tucker Lewis Index (TLI) = 0.98; comparative fit index (CFI) = 0.96; root mean square error of approximation (RMSEA) = 0.095. All measures well exceed the recommended conventional cutoff values (Bagozzi and Yi 1988; Jöreskog and Sörbom 1989). Hu and Bentler (1999) suggest more stringent cutoff values: 0.95 for CFI and TLI and 0.06 for RMSEA. Although the TLI and CFI exceed Hu and Bentler's cutoff value, RMSEA does not. However, Hu and Bentler reserve that decreasing the cutoff value for RMSEA might increase Type I errors, especially given the small sample size. Furthermore, the values of the χ^2/df ratio also indicate a good fit of the data to the hypothesized model (Bagozzi and Yi 1988; Hoelter 1983). Inspection of the standardized residuals showed that none of these exceeded the absolute value of 2.58, the cutoff value suggested by Jöreskog and Sörbom (1989).

Inspection of the path coefficients allows us to test our hypotheses. Hypothesis 1 is rejected on the basis of a significant positive relationship between attentiveness and satisfaction (standardized path coefficient = 0.35; t value = 3.66). We reject Hypothesis 2 because we fail to find a significant positive relationship between perceptiveness and satisfaction. With regard to Hypothesis 3, we find a positive and significant relationship between responsiveness and satisfaction (standardized path coefficient = 0.30;
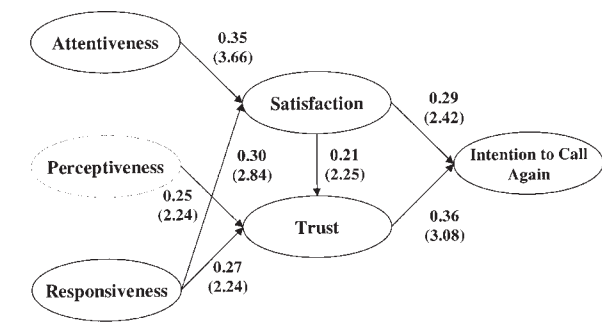
t value = 2.84). Hypothesis 4 is rejected, as there is no relationship between attentiveness and customer trust. In contrast, positive significant relationships between perceptiveness and trust (standardized path coefficient = 0.25; *t* value = 2.24) and responsiveness and trust (standardized path coefficient = 0.27; *t* value=2.24) were encountered. This leads to the acceptance of Hypotheses 5 and 6. A positive relationship was found between satisfaction and trust (standardized path coefficient = 0.21; *t* value = 2.25). Therefore, we fail to reject Hypothesis 7. Finally, we find positive significant relationships between satisfaction and call back intention (standardized path coefficient = 0.29; *t* value = 2.42) and trust and call back intention (standardized path coefficient = 0.36; *t* value = 3.08). Therefore, Hypotheses 8 and 9 are supported.

FIGURE 2
Results of Structural Equation Modeling

DISCUSSION

As both service and manufacturing companies (which increasingly depend on value-added servicing as well) are implementing multichannel service strategies, voice-to-voice encounters are becoming more important. The results of this study help develop a picture of customer evaluations of service provider listening behavior. Furthermore, they point to the fact that customer perceptions of agent listening behavior are instrumental in maintaining relationships. Therefore, both researchers and practitioners should focus on developing this essential communication skill. On the basis of our results, we are able to discuss the nuances of such a focus. It appears that attentiveness is a direct driver of encounter-specific evaluation, whereas perceptiveness is primarily related to trust, which is a more relational outcome variable. Attentiveness is a sign of interactional involvement by the agent. As such, it is the listening dimension that is most closely related to the perceived quality of the process of the remote service encounter. Arguably, attentiveness inferred from the presence of both verbal and nonverbal sounds appeals partly to establishing a bond between customer and service provider from an affective perspective. As a result, customers may feel cared for. This is especially the case when a customer contacts the call center with a hidden agenda (e.g., a need for attention, somebody to talk to). Because satisfaction has an affective side to it, it seems plausible that attentiveness is related to this customer evaluative judgment.

Perceptiveness, on the other hand, appears to be related to the relational consequence of trust. This part of listening behavior involves cognition aimed at assigning meaning to the message that is sent by the customer and digging deeper to come up with root causes behind questions and/or problems. This underlines the notion that when a customer feels that an agent understands and interprets the question or problem correctly, the agent will be perceived as knowledgeable and being able to provide a solution or information again in future occasions.

Finally, the fact that the responsiveness dimension of call center agent listening behavior is related positively to both satisfaction and trust underscores the relative importance of this communication skill. A company's response, which could be related to outcome quality of the service encounter, is frequently what customers are looking for in contacting the firm. Ramsey and Sohi (1997) did not find a significant association between listening behavior and customer satisfaction. Our examination of listening behavior at the dimensional level has allowed us to further nuance the link between listening behavior and customer evaluations.

In addition, we find a significant association between satisfaction and trust. This emphasizes the importance of satisfaction as a mediating construct and suggests that satisfaction with a specific service encounter may be regarded as a building block for customer trust. Our findings are in contrast with the findings of Ramsey and Sohi (1997) who examine listening behavior in face-to-face encounters and suggest that trust is a variable mediating the relationship between listening behavior and satisfaction. This may be explained by the fact that our operationalization of satisfaction was encounter specific (see Table 1), whereas Ramsey and Sohi position satisfaction as a general customer evaluative judgment (e.g., "In general, I am pretty satisfied with my dealings with this salesperson."). Alternatively, customer perceptions of listening behavior may also be dependent on the type of setting and the mode and content of contact. Finally, both a satisfactory evaluation of the voice-to-voice encounter and the building of trust have a significant impact on the customer's intention to contact the center again in the future. This is in line with the results reported by Ramsey and Sohi, who also identify both trust and satisfaction as drivers of intended behavior.

THEORETICAL IMPLICATIONS

Part of the strength of a research project lies in the recognition of its limitations. This may suggest potential issues that merit future research. In the first place, caution should be taken in reference to statements of causality. As both cross-sectional data and a nonexperimental design were used and despite the fact that advanced modeling techniques were employed, any causal inferences based on the results of this study are precluded. Furthermore, inferences about generalizability should be treated with equal caution. It is unknown whether our findings are generalizable to call centers in other types of industry. Future research will have to reveal the generalizability potential of our results.

A second limitation concerns the fact that all concepts were measured at one point in time, thus essentially from a static perspective. It may be worthwhile to study listening behavior over time to be able to take into account the dynamics of employee and customer learning and to follow the build up or breakdown of customer trust. Moreover, should such an approach be taken, measures of actual behavior and objective performance (e.g., switching behavior, word-of-mouth behavior, or vulnerability to price competition) in addition to perceptual gauges could be taken into account.

Third, we must caution against the presence of halo effects. Perceptions of satisfaction and trust may have caused bias in customer evaluations of the various types of listening behavior.

Fourth, future research could explore other antecedents of satisfaction and trust in customer-firm relationships in addition to agent listening behavior. Other variables that can be included in causal modeling are, for instance, the nature and frequency of interaction between parties, fairness, reciprocity, firm reputation, and relational benefits.

Finally, we suggest that in future research, various types of service encounters (including face to face and bit to bit [by means of computer-integrated telephone, for instance]) should be examined in addition to listening behavior as the number of interactive media is rapidly growing (Cowles and Crosby 1990).

MANAGERIAL IMPLICATIONS

Our results also suggest a number of managerial implications. Because listening is an essential communication skill in voice-to-voice service encounters, our results seem relevant to call center managers and supervisors. Listening is a skill; it can be taught, learned, improved, and assessed, for instance, by role-plays. Comprehensive training programs should take all three dimensions of listening behavior into account. First of all, with respect to attentiveness, call center management should be prepared to invest time to learn about customers. Agents should be trained to be sensitive and focused on customer needs, the reasons why the customer called, and the hidden agenda or purpose behind the call. In many call centers, there is still an extreme emphasis on productivity, and efficiency-related performance models are used, which instigate agents to rush calls to completion (Aiello and Kolb 1995).

Second, in relation to perceptiveness, it seems important to increase the agent's knowledge base to better be able to assess customer queries. Modern information tools containing scripts and cues and (listening) skills-based routing may assist agents in improving perceptiveness.

Third, responding can be improved by training agents to be more adaptive and align their communication skills in accordance with the specific wishes of the customer and based on perceived information about the nature of the relationship situation. Again, developing an efficient communication strategy involves an elaborate knowledge structure of customer problems, queries, and behaviors and the contingencies that link specific behaviors to specific circumstances (Dabholkar 1994).

Fourth, it seems advisable to develop a listening tracking system to monitor employee performance. Understanding listening behavior at the dimensional level enables companies to measure and quantify employee behavior and use that knowledge for improvement and training. Tracking performance over time will enable call center management to achieve an insight into which behavioral aspects relate to customer evaluations of individual service encounters and which aspects are likely to transcend to affecting longer term customer commitment.

Finally, insight into listening behavior and its impact on customer evaluations and relational outcomes can be used in the recruitment of agents. Assessment of listening skills may be used as an integral part in the hiring process. For a call center agent that senses, perceives, and responds increases the added value of corporate call centers.

REFERENCES

Abrams, K. S. and E. P. Hibbison (1986), *Communication at Work: Listening, Speaking, Writing and Reading*. Englewood Cliffs, NJ: Prentice Hall.

Aiello, J. R. and K. J. Kolb, (1995), "Electronic Performance Monitoring: A Risk Factor for Workplace Stress," in *Organizational Risk Factors for Job Stress*, S. Sauter and L. R. Murphy, eds. Washington, DC: American Psychological Association, 163-80.

Anderson, C. and M. Martin (1995), "The Effects of Communication Motives, Interaction Involvement, and Communication Loneliness on Satisfaction," *Small Group Research*, 26 (1), 118-37.

Anderson, E. W. and B. Weitz (1989), "Determinants of Continuity in Conventional Industrial Channel Dyads," *Marketing Science*, 4 (4), 310-23.

Anton, J. (1996), *Call Center Management by the Numbers*. Santa Maria, CA: Press on Regardless.

Bagozzi, R. P. and T. F. Heatherton (1994), "A General Approach to Representing Multifacted Personality Constructs: Application to State Self-Esteem," *Structural Equation Modeling*, 1, 35-67.

Bagozzi, R. P. and Y. Yi (1988), "On the Evaluation of Structural Equation Models," *Journal of the Academy of Marketing Science*, 16 (Spring), 74-94.

Barker, L. L. and D. A. Gaut (1996), *Communication*, 7th ed. Boston: Allyn and Bacon.

Baumgartner, H. and C. Homburg (1996), "Applications of Structural Equation Modeling in Marketing and Consumer Research: A Review," *International Journal of Research in Marketing*, 13 (2), 139-61.

Bentler, P. M. and C. Chou (1987), "Practical Issues in Structural Modeling," *Sociological Methods and Research*, 16 (August), 78-117.

Bollen, K. A. (1989), *Structural Equations with Latent Variables*. New York: John Wiley.

Brody, M. (1994), "Listen Up! Do You Really Hear What People Are Saying?" *American Salesman*, 39, 14.

Cowles, D. and L. A. Crosby (1990), "Consumer Acceptance of Interactive Media," *Services Industries Journal*, 10 (3), 521-40.

Crosby, L. A., K. Evans, and D. Cowles (1990), "Relationship Quality in Services Selling: An Interpersonal Influence Perspective," *Journal of Marketing*, 54 (July), 68-81.

Dabholkar, P. (1994), "Technology-Based Service Delivery: A Classification Scheme for Developing Marketing Strategies," in *Advances in Services Marketing and Management*, Vol. 3, T. A. Swartz, D. E. Bowen, and S. W. Brown, eds. Greenwich, CT: JAI, 241-72.

Dawson, K. (1998), *The Call Center Handbook: The Complete Guide to Starting, Running and Improving Your Call Center*. New York: Miller-Freeman.

Dobbins, K. (1996), "Achieving Customer Loyalty through Increased Usage of Teleservices," *Direct Marketing*, 59 (November), 46-49.

Frank, A. D. and J. L. Brownell (1989), *Organizational Communication and Behavior: Communicating to Improve Performance (2+2=5)*. Orlando FL: Darnell.

Frazier, G. L., J. D. Gill, and S. H. Kale (1989), "Dealer Dependence Levels and Reciprocal Actions in a Channel of Distribution in a Developing Country," *Journal of Marketing*, 53, 50-69.

Gerbing, D. W. and J. C. Anderson (1988), "An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment," *Journal of Marketing Research*, 25 (May), 186-92.

Hoelter, J. W. (1983), "The Analysis of Covariance Structures: Goodness-of-Fit Indices," *Sociological Methods and Research*, 11 (February), 325-44.

Hu, L. T. and P. M. Bentler (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives," *Structural Equation Modeling*, 6 (1), 1-55.

Hulland, J., Y. H. Chow, and S. Lam (1996), "Use of Causal Models in Marketing Research," *International Journal of Research in Marketing*, 13, 181-97.

James, L. R., S. S. Mulaik, and J. M. Brett (1982), *Causal Analysis*. Beverly Hills, CA: Sage.

Jöreskog, K. G. and D. Sörbom (1989), *LISREL (r) 7: A Guide to the Program and Applications*. Chicago: SPSS Inc.

——— and ——— (1993), *LISREL (r) 8: Structural Equation Modeling with the SIMPLIS Command Language*. Chicago: SPSS Inc., and Hillsdale, NJ: Lawrence Erlbaum.

Kenny, D. A. (1979), *Correlation and Causality*. New York: John Wiley.

Lagace, R. R., R. Dahlstrom, and J. Gassenheimer (1991), "The Relevance of Ethical Salespeople Behavior on Relationship Quality: The Pharmaceutical Industry," *Journal of Personal Selling & Sales Management*, 11 (Fall), 39-47.

Larzelere, R. E. and T. L. Huston (1980), "The Dyadic Trust Scale: Toward Understanding Interpersonal Trust in Close Relationships, *Journal of Marriage and the Family*, 42 (August), 595-604.

Lewis, M. and N. L. Reinsch Jr. (1988), "Listening in Organizational Environments," *Journal of Business Communication*, 25 (3), 49-67.

Loehlin, J. C. (1987), *Latent Variable Models*. Hillsdale, NJ: Lawrence Erlbaum.

Mead, N. A. (1986), "Listening and Speaking Skills Assessment," in *Performance Assessment: Methods and Applications*, R. A. Berk, ed. Baltimore: Johns Hopkins University Press, 509-21.

Molloy, M. (1996), "Romancing the Phone; A Little Irish Matchmaking Helps Europeans Fall in Love with American Marketers," *Direct Marketing*, 59 (May), 40-43.

Morgan, R. M. and S. D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (July), 20-38.

Netemeyer, R. G., M. W. Johnston, and S. Burton (1990), "Analysis of Role Conflict and Role Ambiguity in a Structural Equations Framework," *Journal of Applied Psychology*, 75 (2), 148-57.

Oliver, R. L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*. New York: McGraw-Hill.

Osterhus, T. L. (1997), "Pro-Social Consumer Influence Strategies: When and How Do They Work," *Journal of Marketing*, 61 (October), 16-29.

Pearson, J. C. and P. E. Nelson (1997), *An Introduction to Human Communication; Understanding and Sharing*. Dubuque, IA: Master.

Ramsey, R. P. and R. S. Sohi (1997), "Listening to Your Customers: The Impact of Perceived Salesperson Listening Behavior on Relationship Outcomes," *Journal of the Academy of Marketing Science*, 25 (2), 127-37.

Selnes, F. (1998), "Antecedents and Consequences of Trust and Satisfaction in Buyer-Seller Relationships," *European Journal of Marketing*, 32 (3/4), 305-22.

Settoon, R. P., N. Bennett, and R. C. Liden (1996), "Social Exchange in Organizations: Perceived Organizational Support, Leader-Member Exchange, and Employee Reciprocity," *Journal of Applied Psychology*, 81 (3), 219-27.

Trenholm, S. (1995), *Thinking through Communication: An Introduction to the Study of Human Communication*. Boston: Allyn and Bacon.

Williams, L. J. and J. T. Hazer (1986), "Antecedents and Consequences of Satisfaction and Commitment in Turnover Model: A Reanalysis Using Latent Variable Structural Equation Methods," *Journal of Applied Psychology*, 71 (2), 219-31.

Ko de Ruyter is a professor of interactive marketing at Maastricht University, the Netherlands, and director of the Maastricht Academic Center for Research in Services (MAXX). He has been a visiting professor at Purdue University. He holds master's degrees from the Free University Amsterdam and the University of Amsterdam. He received his Ph.D. in management science from the University of Twente. He has published five books and more than 130 refereed articles in, among others, the *Journal of Economic Psychology*, *International Journal of Research in Marketing*, *International Journal of Service Industry Management*, *Journal of Business Research*, *European Journal of Marketing*, *Information and Management and Accounting*, and *Organisations and Society*. His research interests concern international service management, call centers, relationship marketing, and customer satisfaction and dissatisfaction.

Martin G. M. Wetzels currently is an assistant professor with the Department of Marketing & Marketing Research at the Faculty of Economics and Business Administration, Maastricht University, and secretary and senior research fellow of the Maastricht Academic Center of Research in Services (MAXX). His main research interests are service quality, customer satisfaction/dissatisfaction, customer value, quality management in service organizations, services marketing, marketing research, cross-functional cooperation, and relationship marketing. His work has been published in the *International Journal of Research in Marketing*, the *Journal of Economic Psychology, Accounting, Organization and Society*, the *Journal of Business Research*, the

European Journal of Marketing, Advances in Services Marketing and Management, the *Journal of Business and Industrial Marketing*, the *International Journal of Service Industry Management*, and the *Journal of Customer Satisfaction, Dissatisfaction and Complaining Behavior.* Finally, he has contributed more than 30 papers to conference proceedings.